

place in this section of the state in addition to the one described above, and in both of these localities it was found very sparingly.

The only other species of *Botrychium* from Tennessee represented in the herbarium is *B. virginianum* (L.) Sw. There are specimens from each of the grand divisions of the state, and the writer has gathered it near Knoxville. The plant now classified as *B. obliquum* var. *dissectum* (Spreng.) Clute is reported by Gattinger in his Flora of Tennessee as occurring with these two, but there are no specimens of this variety in his collection which forms a part of the university herbarium.—ERNEST SHAW REYNOLDS, University of Tennessee, Knoxville, Tennessee.

AN IMPORTANT PUBLICATION ON LICHENS.—New England botanists who would like to have some knowledge of our lichens, but who have been prevented by lack of literature will welcome the publication of Prof. Bruce Fink's "Lichens of Minnesota."¹ The work consists of a general introductory account of the structure and reproduction of lichens, followed by a descriptive catalogue, furnished with copious keys, and illustrated with photographs of unusual excellence. Each species is described at some length, and notes as to habitat and geographical range are added. It should be understood, however, that this is not a popular handbook, doing for the lichens what Dr. Grout's serviceable "Mosses with a Hand-Lens" does so well for that group. Prof. Fink has not intended to prepare a popular work, and it is doubtful if such a book would be satisfactory, since the classification of lichens must necessarily be based upon microscopic characters. Unless he has access to an herbarium, the path of the beginner in the study of lichens is not an easy one, at best, but with a microscope at one's disposal, with the patience which all scientific work requires, and with Prof. Fink's book, one is better equipped than has ever before been the case. Of the 439 species and varieties found in Minnesota, over 300 occur also in New England, and while there are some of our familiar New England lichens which do not extend so far west as Minnesota, the work is the most convenient manual available for students throughout the northeastern states. For the specialist this publication is of great significance, as it represents the culmination of fourteen years of careful work, with the matured views of Prof. Fink concerning the considerable number of species which he treats.—L. W. RIDDLE, Wellesley College.

¹ Fink, Bruce. The Lichens of Minnesota. Contributions from the U. S. National Herbarium, vol. 14, part 1, pp. 1-269, with 51 plates and 18 text-figures. Published by the Smithsonian Institution, Washington, D. C., June 1, 1910. A few copies may be obtained from the Superintendent of Public Documents, Government Printing Office, Washington, D. C., at fifty cents each.